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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,978	10/17/2001	J. Barry Shackleford	10019023-1	4384

7590 07/27/2005

HEWLETT-PACKARD COMPANY
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EXAMINER	
PHAN, THAI Q	

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/977,978	SHACKLEFORD ET AL.	
	Examiner	Art Unit	
	Thai Q. Phan	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *05/16/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to applicants' amendment filed on 05/16/2005. Claims 1-29 are pending in the action.

Information Disclosure Statement

Applicants' argument to the IDS statement has been considered. Applicants remind to timely filed the related IDS.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gutowitz, H., US patent no. 5,365,589.

As per claim 1, Gutowitz anticipates a method implemented in a computation system for simulating/emulating a cellular automata for random data generation with feature limitations very identical to the claimed invention. According to Gutowits, the method includes

Determining a set of simulation or emulation parameters

Initializing the software for simulation

Storing state values for the cellular automata cells and rules for operations in parallel when executed.

And outputting random numbered code words or state values from the cellular based simulation (col. 4, line 12 to col. 9, line 18).

As per claims 2-6, Gutowitz anticipates cellular automata with cells and operation rules as claimed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 7-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Lyke, C. J., US patent no. 6,215,327.

As per claim 7, Lyke anticipates a method and system to generate a software code emulating a cellular automata (CA) based random number generator with feature limitations very identical to the claimed invention. According to Lyke, the method for generating random number includes steps

Determining random number generation (RNG) parameters,

Determining templates used for cellular automaton based design,

Determining functional definition of the CA based RNG generation,

Determining initialization routine for the generated RNG, and

Determining simulation results and outputting code for the generation RNG (col. 21, line 55 to col. 22, line 15, col. 22, lines 27-49).

As per claim 8, Lyke anticipates a plurality of interconnection topologies for cellular automaton based RNG (cols. 11-14).

As per claims 9-17, Lyke anticipates the claimed limitations in the CA based RNG generation.

As per claims 18 and 25, Lyke anticipates a computer system for generating and simulating cellular automata based random number generation with feature limitations very identical to the claimed invention. According to Lyke, the system includes means/modules:

Determining random number generation (RNG) parameters,

Determining templates used for cellular automaton based design,

Determining functional definition of the CA based RNG generation,

Determining initialization routine for the generated RNG, and

Determining simulation results and outputting code for the generation RNG (col. 21, line 55 to col. 22, line 15, col. 22, lines 27-49).

As per claims 19-24 and 26-29, Lyke anticipates the claimed limitations for RNG generation and simulation.

Response to Arguments

Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US patent no. 5,644,497, issued to Hyman, Edward, on July 1997

2. US patent no. 6,910,057, issued to Shackleford et al, on June 2005

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Q. Phan whose telephone number is 571-272-3783. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean Homere can be reached on 571-272-3780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 22, 2005

Thai Phan
Patent Examiner
7/20/05